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MINUTES OF THE MEETINGS OF THE BOARD OF DIRECTORS, HELD
IN SAN FRANCISCO MARCH 29, 1890.

Mr. HOLDEN in the Chair. A quorum was present.

The minutes of the last meeting were read and approved.

W. H. MAW, of London, J. EWEN DAVIDSON, of Branscombe, Mackay, Queensland, and ANDREW GREIG, of Tayport, Scotland, were elected to life membership, subject to the action of the Society.

A deed was received from Hon. JOSEPH A. DONOHOE, conveying the dies for the DONOHOE Comet Medal, and ten finished medals, accompanied by a letter, stating that the principal of the Medal Fund had been deposited (bank book No. 51,529) in the San Francisco Savings Union, January 1, 1890. An acknowledgement from the bank to receiving the fund accompanied the letter. Received and ordered on file.

The Library Committee reported that a number of books had been ordered.

Bills to the amount of \$74.40 were ordered paid.

The resignation of W. C. GIBBS was received and accepted.

The following resolutions were adopted:

Resolved, That the Committee on the Comet Medal is authorized to make any arrangements for striking the medals which may seem best, and to send the dies abroad, if necessary.

Resolved, That designs for a seal for the Society be procured.

Resolved, That the Committee on Publication is instructed to print the publications of the Society and to distribute them, according to the present system, until further orders.

Resolved, That the list of Corresponding Observatories and Institutions, as printed in *Publ. A. S. P.*, No. 7, is authorized.

The Directors then adjourned.

A meeting of the newly elected Board of Directors was held immediately upon the adjournment of the meeting of the Society, and the officers and committees for the year were elected, according to the lists printed on the last page of the present number of the publications.

MINUTES OF THE MEETING OF THE ASTRONOMICAL SOCIETY OF THE
PACIFIC, HELD (BY INVITATION) AT THE CALIFORNIA
ACADEMY OF SCIENCES' BUILDING, SAN FRAN-
CISCO, MARCH 29, 1890.

The President in the Chair.

The minutes of the last meeting were read and approved.

The thanks of the Society were returned to the California Academy of Sciences for the use of their rooms.

Twenty-three new members were elected. (Their names are printed in the present number on page 89.)

The Committee on Nominations reported a list of names proposed for election, as follows:

For Directors: Messrs. ALVORD, BURCKHALTER, GRANT, HILL, HOLDEN, MOLERA, PIERSOON, SCHAEBERLE, SOULÉ, WYTHE, ZIEL.

For Committee on Publication: Messrs. HOLDEN, KEELER, YALE.

Messrs. McCONNELL and ZIEL were appointed as tellers. The polls were open from 8 to 9 o'clock, and the persons above named were duly elected.

The Secretary reported that seventy-five presents had been received since the last meeting, and the thanks of the Society were voted to the givers.

Publications of the

The Treasurer then read his annual report, as follows:

RECEIPTS TO MARCH 29, 1890.

From dues.....	\$2,145 00
From sale of publications.....	2 00
<u><u>\$2,147 00</u></u>	
CURRENT EXPENSES TO MARCH 29.	
For publications.....	\$ 646 45
For other purposes.....	379 80
	<u><u>\$1,026 25</u></u>
Cash in bank.....	1,120 75
	<u><u>\$2,147 00</u></u>
FUNDS.	
DONOHOE Medal Fund.....	\$ 500 00
MONTGOMERY Library Fund	2,500 00
	<u><u>\$3,000 00</u></u>
Cash in bank.....	1,120 75
Total cash on hand.....	<u><u>\$4,120 75</u></u>

The committee appointed to audit the Treasurer's accounts, reported as follows:

"Your committee appointed to audit the accounts of the Treasurer, have made an examination of said accounts from the commencement of his term to the present date, and find them to be entirely correct."

"SAN FRANCISCO, March 29, 1890.

"(Signed) GEO. H. STRONG, Chairman,
 EDWARD S. GRAY,
 CHASE GITCHELL."

The report was accepted and adopted, and the committee was discharged.

A communication from Messrs. F. H. HAUSMAN and J. G. JONES was read, proposing that the Society establish an Observatory in San Francisco for the use of the members. A committee of three was appointed, to report on this subject at the next meeting. Messrs. HAUSMAN, JONES and PIERSON, Committee.

The President again called the attention of the photographers of the Society to the matter of photographing the Moon in the day time, and expressed the hope that the subject might receive their attention. (See *Publ. A. S. P.*, Vol. I, page 32.)

The Society was informed that a CLARK telescope was for sale, and that Mr. N. E. BECKWITH, of Los Gatos, could furnish particulars of its size and of its cost.

The following papers were announced:

a. "Die Astronomische Gesellschaft," by Dr. H. KREUTZ, of the Observatory of Kiel.

b. "The Orbit of μ^2 *Herculis*," by A. O. LEUSCHNER.

c. "On the Similarity of Certain Asteroid Orbits," by Prof. DANIEL KIRKWOOD, LL. D.

d. Annual Address by the retiring President.

e. Account of the Observations of the Total Solar Eclipse of December 22, 1889, by Prof. J. M. SCHAEBERLE.

The latter only was read. The papers are printed in the present number.

The Society then adjourned.

LIST OF MEMBERS, JANUARY 25, 1890.*

CHARLES S. AIKEN,	. . . . .	Berkeley, Cal.
Prof. W. STEADMAN ALDIS, F. R. A. S.	. . . . .	{ University College, Auckland, New Zealand.
Hon. HENRY B. ALVORD,*	. . . . .	San José, Cal.
Hon. WILLIAM ALVORD,*	. . . . .	Palace Hotel, S. F., Cal.
Mrs. WILLIAM ALVORD,*	. . . . .	Palace Hotel, S. F., Cal.
T. P. ANDREWS,	. . . . .	226 Bush Street, S. F., Cal.
Director ANGEL ANGUIANO,	. . . . .	{ National Observatory, Tacubaya, Mexico.
CHAS. M. BAKEWELL,	. . . . .	Berkeley, Cal.
E. E. BARNARD, F. R. A. S.	. . . . .	Lick Observatory, Mt. Hamilton, Cal.
Hon. JOHN M. BEARD,	. . . . .	Warm Springs, Cal.
GEORGE W. BEAVER,	. . . . .	418 California Street, S. F., Cal.
N. E. BECKWITH,	. . . . .	Los Gatos, Cal.
D. P. BELKNAP,	. . . . .	604 Merchant Street, S. F., Cal.
E. M. BIXLEY,	. . . . .	317 California Street, S. F., Cal.
Hon. JOHN H. BOALT,	. . . . .	332 Haight Street, S. F., Cal.
Dr. WM. BOERICKE,	. . . . .	834 Sutter Street, S. F., Cal.
JOSÉ A. Y BONILLA,	. . . . .	{ Plaza del Mercado, 22, Zacatecas, Mexico.
J. H. C. BONTÉ, D. D.	. . . . .	Berkeley, Cal.
HENRY LORD BOULTON, JR., F. R. A. S.*	. . . . .	{ Caracas, Venezuela; or Box 2015, New York City.
J. A. BRASHEAR,	. . . . .	Allegheny City, Penn.
Rev. M. S. BRENNAN,	. . . . .	3949 Iowa Street, St. Louis, Mo.
Rev. A. L. BREWER,	. . . . .	San Mateo, Cal.
Miss C. W. BRUCE,*	. . . . .	39 E. 23d Street, New York City.
JOHN C. BULLOCK,	. . . . .	1626 12th Street, Oakland, Cal.
CHAS. BURCKHALTER,	. . . . .	Chabot Observatory, Oakland, Cal.
A. J. BURNHAM,	. . . . .	Lick Observatory, Mt. Hamilton, Cal.
S. W. BURNHAM, F. R. A. S.	. . . . .	Lick Observatory, Mt. Hamilton, Cal.
Dr. J. CALLANDREAU,	. . . . .	1307 Stockton Street, S. F., Cal.
J. C. CEBRIAN,	. . . . .	Pine & Octavia Streets, S. F., Cal.
A. R. CHURCH,	. . . . .	1102 10th Street, Oakland, Cal.
REV. E. BENTLEY CHURCH,	. . . . .	1036 Valencia Street, S. F., Cal.
MATEO CLARK,*	. . . . .	27 Queen's Gate, London, England.
C. H. CLEMENT,	. . . . .	Livermore, Cal.
Miss AGNES M. CLERKE,	. . . . .	68 Redcliffe Square, London, England.
H. F. COMPTON,	966 Chester Street, Oakland, Cal.
J. COSTA,	406 Montgomery Street, S. F. Cal.
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S. J. CUNNINGHAM,	{ Swarthmore College, Delaware Co., Penn.
CHAS. S. CUSHING,	1669 13th Street, Oakland, Cal.
President HORACE DAVIS, LL.D.	. . . . .	1011 Bush Street, S. F., Cal.
A. B. DEPUY,	. . . . .	216 N. 6th Street, Camden, N. J.

* An asterisk (*) is added to the names of Life Members. Addresses in italics are not within the Postal Union.

Publications of the

Dr. W. A. DEWEY,	834 Sutter Street, S. F., Cal.
Hon. JOSEPH A. DONOHOE,*	Menlo Park, Cal.
W. E. DOWNS,	Sutter Creek, Cal.
Mrs. ANNA PALMER DRAPER,*	271 Madison Avenue, New York City.
Dr. L. L. DUNBAR,	500 Sutter Street, S. F., Cal.
Prof. GEORGE C. EDWARDS,	Berkeley, Cal.
Mrs. MARTHA MCC. EWER,	220 Market Street, S. F., Cal.
WARREN B. EWER,	220 Market Street, S. F., Cal.
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Dr. C. L. GODDARD,	131 Post Street, S. F., Cal.
CAMILO GONZALES,	{ National Observatory, Tacubaya, Mexico.
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ADAM GRANT,*	Bush & Sansome Streets, S. F., Cal.
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AUGUSTUS F. KNUDSEN,	Box 2139, Boston, Mass.
O. V. LANGE,	1025 Market Street, S. F., Cal.
JOSEPH G. LAVERY,	410 California Street, S. F., Cal.
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Dr. GEORGE C. PARDEE,	526 Montgomery Street, S. F., Cal.
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Publications of the

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Astronomical Society of the Pacific. 89

J. C. L. WADSWORTH,	Pacific Union Club, S. F., Cal.
Prof. J. F. WALLACE,	Highland Park, Oakland, Cal.
Governor R. W. WATERMAN,*	The Capitol, Sacramento, Cal.
FREDK. G. WATTLES,	Box 2433, Denver, Colorado.
R. H. WHITE,	1216 Haight Street, S. F., Cal.
E. C. WINCHELL,	1214 Grove Street, Oakland, Cal.
Rev. J. H. WYTHE, D. D.	825 14th Street, Oakland, Cal.
CHAS. G. VALE,	220 Market Street, S. F., Cal.
JOHN H. YOELL,	San José, Cal.
EDWARD B. YOUNG,	430 Montgomery Street, S. F., Cal.
F. R. ZIEL,	410 California Street, S. F., Cal.

MEMBERS ELECTED MARCH 29, 1890.

H. T. BESTOR,	207 O'Farrell Street, S. F., Cal.
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A. W. CRAIG,	177 8th Street, Oakland, Cal.
J. EWEN DAVIDSON,*	{ Alexandra Plantation, Branscombe, Mackay, Queensland.
HARRY DURBROW,	322 California Street, S. F., Cal.
GEORGE GLEASON,	Berkeley, Cal.
ANDREW GREIG,*	Belle Vue, Tayport, Scotland.
Mrs. H. A. HARLAND,	705 Post Street, S. F. Cal.
WILLIAM E. HESS,	519 Kearny Street, S. F., Cal.
A. M. HICKOX,	416 California Street, S. F., Cal.
ARTHUR M. HUSSEY,	{ University of Michigan, Ann Arbor, Michigan.
Miss DOROTHEA KLUMPKE,	National Observatory, Paris, France.
Miss LASSELL,	Ray Lodge, Maidenhead, England.
H. C. LION,	1534 Mission Street, S. F., Cal.
J. J. MALOWNEY,	Hebron, Nebraska.
W. H. MAW, F. R. A. S.*	{ 18 Addison Road, Kensington, Lon- don, England.
D. PATIN,	1618 Chesnut Street, Philadelphia, Pa.
ALANSON H. PHELPS,	220 Mission Street, S. F., Cal.
O. A. L. PHIL,	Christiania, Norway.
HERBERT SADLER, F. R. A. S.	{ 32 Manor Street, Clapham, London, England.
JOHN TEBBUTT, F. R. A. S.	{ Observatory, Windsor, New South Wales.
A. STANLEY WILLIAMS, F. R. A. S.	{ Percy Lodge, Burgess Hill, Brighton, England.
Mrs. HARRIET F. WRIGHT,	1111 Corona Street, Denver, Colorado.

LIST OF CORRESPONDING OBSERVATORIES, ETC.

Dudley Observatory, Albany, New York.
 Observatory, Algiers, Africa.
 Lawrence Observatory, Amherst, Mass.
 Detroit Observatory, Ann Arbor, Michigan.
 Library, University of California, Berkeley, Cal.
 Redaction Berliner Jahrbuch, Berlin, Germany.

Publications of the

- Royal Observatory, Berlin, Germany.
Gesellschaft Urania, Berlin, Germany.
Observatory, Berne, Switzerland.
University Observatory, Bonn, Germany.
Observatory, Bordeaux, France.
Royal Observatory, Brussels, Belgium.
University Observatory, Cambridge, England.
Harvard College Observatory, Cambridge, Mass.
Royal Observatory, Capetown, Africa.
Astronomical Society, Chicago, Illinois.
University Observatory, Christiania, Norway.
University Observatory, Cincinnati (Mt. Lookout), Ohio.
Litchfield Observatory, Clinton, New York.
National Observatory, Cordoba, Argentine Republic.
University Observatory, Dorpat, Russia.
Royal Observatory, Edinburgh, Scotland.
Lick College, Fredericksburg, Lebanon county, Penn.
Observatory, Geneva, Switzerland.
College Observatory, Georgetown, D. C.
Morrison Observatory, Glasgow, Missouri.
University Observatory, Glasgow, Scotland.
Observatory, Gotha, Germany.
Royal Observatory, Greenwich, England.
Observatory, Hamburg, Germany.
Dartmouth College Observatory, Hanover, N. H.
University Observatory, Helsingfors, Russia.
Ducal Observatory, Karlsruhe, Germany.
University Observatory, Kasan, Russia.
University Observatory, Kiel, Germany.
University Observatory, Koenigsberg, Germany.
Royal Observatory, Copenhagen, Denmark.
Observatory, La Plata, Argentine Republic.
University Observatory, Leyden, Holland.
Astronomische Gesellschaft, Leipzig, Germany.
University Observatory, Leipzig, Germany.
Royal Observatory, Lisbon, Portugal.
Astronomical Society, Liverpool, England.
British Museum, London, England.
Royal Astronomical Society, London, England.
The Nautical Almanac, London, England.
Observatory, Lund, Sweden.
Observatory, Lyons, France.
Washburn Observatory, Madison, Wisconsin.
Observatory, Madras, India.
Royal Observatory, Madrid, Spain.
Observatory, Marseilles, France.
Observatory, Melbourne, Australia.
Stanford University, Menlo Park, Cal.
Royal Observatory, Milan, Italy.
University Observatory, Moscow, Russia.

- Lick Observatory, Mt. Hamilton, Cal.
Royal Observatory, Munich, Germany.
Royal Observatory, Naples, Italy.
Observatory, Neuchâtel, Switzerland.
Winchester Observatory, New Haven, Conn.
Observatory, Nice, France.
Observatory of Carlton College, Northfield, Minnesota.
Chabot Observatory, Oakland, Cal.
Radcliffe Observatory, Oxford, England.
Savilian Observatory, Oxford, England.
Royal Observatory, Palermo, Italy.
Bureau des Longitudes, Paris, France.
Astronomical Society, Paris, France.
National Observatory, Paris, France.
Lord Rosse's Observatory, Parsonstown, Ireland.
Astrophysikalisches Institut, Potsdam, Germany.
University Observatory, Prague, Austro-Hungary.
Halstead Observatory, Princeton, New Jersey.
Imperial Observatory, Pulkowa, Russia.
Observatory, Rio de Janeiro, Brazil.
Observatory of the Roman College, Rome, Italy.
Italian Spectroscopic Society, Rome, Italy.
California Academy of Sciences, S. F., Cal.
Mercantile Library, S. F., Cal.
Mechanics' Institute Library, S. F., Cal.
Technical Society of the Pacific Coast, 408 California Street, S. F., Cal.
Observatory, Santiago, Chile.
University Observatory, Stockholm, Sweden.
University Observatory, Strassburg, Germany.
Observatory of Sydney, New South Wales.
National Observatory, Tacubaya, Mexico.
University Observatory, Tokio, Japan.
Observatory, Toulouse, France.
University Observatory, Upsala, Sweden.
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Field Observatory, Williamstown, Mass.
Observatory, Zurich, Switzerland.